REMARKS

Claims 1-8 are pending in this application. No amendment is made in this Response. It is believed that this Amendment is fully responsive to the Office Action dated **May 3, 2007**.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the U.S. Patent of Strickler et al. (6,858,306; hereinafter "Strickler"), in view of the U.S. Patent of Oliver et al. (4,797,317; hereinafter "Oliver"). (Office action paragraph no. 4)

The rejection of claims 1-8 is respectfully traversed, and reconsideration of the rejection is requested. In traversing the rejection, Applicant first notes that the recitation of claim 1 has the following requirements:

(A) a substrate having solar radiation reflecting properties, whose visible light reflectance is 10% or more,

(B) a visible light absorbing film formed by a visible light absorbing ink having been coated on one side or both sides of the substrate,

(C) the degree of reduction of visible light reflectance is 0.9 or less as defined by degree of reduction of visible light reflectance = [visible light reflectance (%) after coating of the ink]/[visible light reflectance (%) before coating of the ink], and

(D) the degree of reduction of solar radiation reflectance is 0.25 or more as defined by degree of reduction of solar radiation reflectance = [solar radiation reflectance (%) after coating of the ink]/[solar radiation reflectance (%) before coating of the ink].

Regarding the teachings of Strickler '306

(1) Strickler describes a coated glass article comprising a glass substrate, a coating of antimony doped tin oxide having adhered to the substrate, and a coating of fluorine doped tin oxide having adhered to the coating of antimony doped tin oxide (see Strickler's claim 1).

And Strickler in column 5, lines 40-44, teaches that "The coatings of the article of the invention may be applied by any of the conventional methods generally known in the art. Preferably, the coatings are applied on-line onto the glass substrate by **chemical vapor deposition** during the glass manufacturing process" (emphasis added). That is, the coating of antimony doped tin oxide and the coating of fluorine doped tin oxide of Strickler are both formed in principle by chemical vapor deposition. These coatings are thus different from the visible light absorbing film of the present invention which is formed by using a visible light absorbing ink.

(2) The Examiner states that "...the coated article of Strickler can be deemed as having a visible light reflectance of 10% or more." In so doing, the Examiner draws attention to column 2, lines 23-24, of Strickler where it is taught that "The coated glass article has a visible light transmittance of 63% or more..." and to column 2, lines 67-68 of Oliver where it is taught that "...a light transmission on the order of 20-30%, for example, implies reflectivity of 70-80%."

But the visible light reflectance of 10% or more, which is alleged above by the Examiner, points to a visible light reflectance of the glass article obtained after both the coating of antimony doped tin oxide and the coating of fluorine doped tin oxide are applied. Noticeably, the visible light

reflectance in question is not associated with the glass substrate before those coatings are applied.

Thus, even if the coated glass article has a visible light transmittance of 63% or more, it is impossible to conclude that the glass article before being coated shows a visible light reflectance of 10% or more.

(3) For that reason, there is no disclosure in Strickler of requirement A, "a visible light reflectance of 10% or more," which is related to the substrate according to the present invention, and requirement B, "a visible light absorbing film," which is formed by coating of a visible light absorbing ink according to the present invention.

As discussed above, Strickler fails to disclose the visible light absorbing ink of requirement B according to the present invention. This reference does not even teach or suggest requirement C, "the degree of reduction of visible light reflectance," and requirement D, "the degree of reduction of solar radiation reflectance," requirements C and D being defined on condition that the visible light absorbing ink is used.

Regarding the teachings of Oliver '317

(1) Oliver at column 3, lines 55-60, teaches that: "...the invention contemplates the provision of a first polymeric film stratum including a high density layer of metal but low reflectance and a second polymeric stratum having a coat of dye on a first surface, or impregnated in the film, and means for laminating the film strata."

Additionally, column 3, line 65, to column 4, line 2, teaches that "In a more specific embodiment, the invention is a first sheet of oriented polyethylene terephthalate which carries a vignette layer of metal having an area of high density applied by conventional vacuum deposition laminated adhesively to a second sheet of dye impregnated polymer, preferably polyethylene terephthalate."

Furthermore, Figure 1 shows a solar control composite structured with a dye impregnated film 12 (equivalent to a second polymeric film stratum), a polyethylene terephthalate stratum 18 (equivalent to a first polymeric film stratum) including a vignette layer 16 of metal and laminated via an adhesive layer 14 to the dye impregnated film, a scratch resistant coating 11 applied to the dye impregnated film 12, and a release liner 22 applied to the PET film 18 through a layer of adhesive 20.

(2) As is understood from these teachings, the solar control composite film of Oliver comprises, for its essential part, a first polymeric film stratum including a vignette layer of metal, and a second polymeric, dye-impregnated film stratum laminated via an adhesive layer to the first polymeric film stratum with the vignette layer disposed inside. That is, Oliver's solar control composite film has a structure of [a second polymeric, dye-impregnated film stratum]/[an adhesive layer]/[a first polymeric film stratum including a vignette layer of metal].

(3) In contrast, the visible light absorbing film of the present invention is formed by a visible light absorbing ink having been coated on one side or both sides of "a substrate which has solar radiation reflecting properties and whose visible light reflectance is 10% or more."

(4) Here, attention is paid to Oliver's "second polymeric, dye-impregnated film stratum 12." Assuming that the "second polymeric film stratum 12" would correspond to the substrate in claim 1, and the "coat of dye" would correspond to the visible light absorbing film formed by the visible light absorbing ink in claim 1, the presently claimed invention is distinguished from Oliver's described invention in the following points:

Firstly, the substrate in claim 1 must "have solar radiation reflecting properties and whose visible light reflectance is 10% or more," as previously indicated to be requirement (A).

On the other hand, Oliver sets certain conditions to be met in the above-mentioned "second polymeric film stratum 12." In the abstract, Oliver teaches that "a second polymeric stratum of dye-treated PET is bonded to a first polymeric stratum and transmits about 35% to 70% visible light." In addition, in claim 1, Oliver recites that "a second polymeric, dye-treated stratum is bonded to a first polymeric stratum and has light transmission values from about 35% to 70%."

As such, Oliver neither discloses nor suggests that the above-mentioned "second polymeric film stratum 12" should meet requirement (A) specifying that "...have solar radiation reflecting properties and whose visible light reflectance is 10% or more." In this regard, the present invention differs from Oliver's invention.

(5) If, on the other hand, the substrate in claim 1 would be considered to correspond to both the "second polymeric film stratum 12" and the "vignette layer 16 of metal," or both the "second polymeric film stratum 12" and the "first polymeric film stratum 18 including the vignette layer 16 of metal," and the "coat of dye" would correspond to the visible light absorbing film formed by the

visible light absorbing ink in claim 1, the presently claimed invention is distinguished from Oliver's described invention in the following points:

Firstly, claim 1 has requirements (C) and (D) as follows:

(C) the degree of reduction of visible light reflectance is 0.9 or less as defined by degree of reduction of visible light reflectance = [visible light reflectance (%) after coating of the ink]/[visible light reflectance (%) before coating of the ink], and

(D) the degree of reduction of solar radiation reflectance is 0.25 or more as defined by degree of reduction of solar radiation reflectance = [solar radiation reflectance (%) after coating of the ink]/[solar radiation reflectance (%) before coating of the ink].

To determine these degrees of reduction, it is necessary to measure the visible light reflectances and solar radiation reflectances of the substrate both before and after formation of the visible light absorbing film.

In the structure of Oliver, if the coat of dye were taken as corresponding to the visible light absorbing film in claim 1, it might be possible to measure the visible light reflectance and solar radiation reflectance of the substrate after formation of the visible light absorbing film by the dye (on condition that each such reflectance of the complete composite sheet is measured). However, at a stage where no visible light absorbing film is yet formed, the visible light reflectance and solar radiation reflectance of the substrate can hardly be measured.

This is because Oliver's composite sheet is so structured that the "second polymeric, dye-treated film stratum" is bonded to the "first polymeric film stratum including the vignette layer of metal."

More specifically, given that the substrate in claim 1 would be constituted of the "second polymeric film stratum 12" and the "vignette layer 16 of metal," or the "second polymeric film stratum 12" and the "first polymeric film stratum 18 including the vignette layer 16 of metal," Oliver's composite sheet does not assume that the "second polymeric film stratum 12" being not yet dye-treated is bonded to the "first polymeric film stratum 18 including the vignette layer 16 of metal."

This fact may be found clear upon reference to US 4,797,317 (Oliver) in column 3, lines 29-42 where it is disclosed that:

> "This invention draws on the surprising discovery that by applying a metal layer, by conventional vacuum deposition, using a metal that, deposited at a density great enough to reduce the transmission of visible light to less than about 45%, reflects no more than about 35% of the visible light, to a first stratum of polymeric film, **which stratum is in turn bonded to a second dye-treated polymeric stratum having a light transmission value greater than 35%, a composite film having a light transmission value** in the area above the driver's sight line **of less than 35% and reflectivity less than about 35% is obtained**. In a preferred embodiment, the area of greatest density is at the top of the window and tapers off in a vignette to low density below the sight line." (emphasis added)

In consequence, Oliver does not assume that measurement should be made of the visible light reflectance and solar radiation reflectance of the substrate before formation of a visible light

absorbing film by a dye. There is no disclosure or suggestion in Oliver for requirements (C) and (D) of the claim 1 of the present invention. The present invention therefore differs from that of Oliver.

Regarding the combination of Strickler with Oliver

Strickler even if combined with Oliver fails to provide the "visible light absorbing film" set forth in claim 1 of this application, and having requirements (A) to (D). Claims 1-8 are therefore not obvious over Strickler and Oliver, taken separately or in combination.

Claims 4, 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strickler, in view of Oliver et al., as applied to Claims 1-5 above, and further in view of the Japanese Patent Publication of Toshiharu et al. (JP 10-182190; hereinafter "Toshiharu"). (Office action paragraph no. 8)

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Strickler, in view of Oliver et al., as applied to Claims 1-5 above, and further in view of the Japanese Patent Publication of Masaki et al. (JP 2000-238170; hereinafter "Masaaki"). (Office action paragraph no. 11)

These rejections are respectfully traversed, and reconsideration is requested.

Applicant has argued above that base claim 1 is not obvious over the combination of Stricker and Oliver. In particular, the combination of Strickler with Oliver fails to provide the "visible light absorbing film" set forth in claim 1 of this application.

Applicant submits that the additional teachings of Toshiharu or Masaaki cannot overcome this deficiency in the combination of Strikler and Oliver. Claims 4, 5 and 7 are therefore not obvious over Strikler, Oliver, Toshiharu or Masaaki, taken separately or in combination.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the Applicant's undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, the Applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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Enclosure: Petition for Extension of Time

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